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A NEW SUBSPECIES OF PIPIT FROM ARGENTINA AND PARAGUAY

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A small consignment of birds recently submitted to me for identification by Sr. Juan G. Esteban of the Fundación Miguel Lillo of Tucumán, Argentina, contained two examples of a pipit that proved to be of unusual interest. For many years there has been a specimen in the collections of the American Museum of Natural History that was obviously of a new form, but which it was undesirable to name without additional material to confirm its characters. Comparison showed that the newly arrived specimens undoubtedly belong to this same new form.

Relationship of the new form appears to be with Anthus chii [= lutescens] but whether the distinctions are of specific or only subspecific value has proved difficult to determine. One of the principal characters, the shape and length of the hind claw, is frequently a specific criterion in pipits, but in most other respects the new birds closely follow the general pattern and size of chii. No overlap in range is evident but "lutescens" has been reported from localities near to those where the new bird was obtained. Through the kindness of Dr. Herbert Friedmann, of the U.S. National Museum, I have been able to borrow a small series of birds from the same general region, obtained some years ago by Dr. Wetmore. To my surprise, I found among these skins four more specimens belonging to the new form. None of the seven specimens now in hand came from the exact locality represented by any available specimen of chii, but none is a breeding specimen, and the exact breeding range is still to be determined. Since no overlap has appeared in the wintering ranges of chii and the new form (and the breeding range of chii) there is no reason to expect an overlap in nesting time, although the possibility exists. If such overlap occurs, it will be necessary to elevate the new form to specific rank. In the meantime I consider it a well-marked member of the chii group that may be known as follows.

Color terms are capitalized when direct comparison has been made with Ridgway's "Color Standards and Color Nomenclature."

Anthus chii chacoensis, new subspecies

Type from Avia Terai, Gobernación de Chaco. Argentina; altitude 350 feet; no. 142016, American Museum of Natural History; adult female collected May 2, 1916, by Leo E. Miller and H. S. Boyle; original no. 16431.

Diagnosis.—Similar to A. c. chii [= lutescens] of Paraguay (and Bolivia, northern Argentina, and southern Brazil) but differing by paler

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and more whitish (less buffy or brownish) dorsal streaking, more pinkish buff (less yellowish) under parts; more pronounced streaking on the flanks; less extensive white markings on the outer two pairs of rectrices (on the average); and shorter and more curved hind claw.

Range.—Argentina and Paraguayan Chaco, at least in the non-breeding season.

Description of type .-- Top of head with centers of feathers near Chaetura Black sharply margined laterally with Pale Olive-Buff, giving a strongly streaked appearance; hind neck with dark centers a little browner and the margins near Light Drab; mantle like crown but with the margins of the feathers paler and more whitish, especially toward the scapulars where they tend to produce the effect of a prominent lateral stripe on each side; lower back dark Buffy Brown with dusky central stripes poorly defined; upper tail-coverts with dusky shaftstreaks bordered faintly with a rufescent brown which passes through Drab to near Smoke Gray on the edges of the feathers. Chin and center of throat more whitish than Pale Pinkish Buff, passing laterally and posteriorly into Pinkish Buff; breast Pinkish Buff with prominent, somewhat sagittate, dark brown terminal shaft-spots, broader on the sides and continued down the flanks in strong shaft-stripes although the margins of the feathers become more whitish; upper belly likewise passes from the Pinkish Buff of the breast through Pale Pinkish Buff to even more whitish in the anal region; under tail-coverts again a little more buffy. Remiges dark brown; outer margin of outermost primary whitish to the shaft, except toward the tip where it is somewhat withdrawn to the outer margin, only; outer margins of the next four or five primaries narrowly whitish, with the margins of the remaining primaries and secondaries becoming more buffy brownish in tone; tertials somewhat like the mantle, blackish, with prominent whitish margins; inner margins of the primaries and secondaries broadly whitish or faintly buffy, reaching near the tips of the inner feathers but becoming shorter on the outer ones; this pale area reaches the shaft broadly at the basal portion on the outermost primary; upper wingcoverts sooty brown, broadly edged and tipped with buff; under wingcoverts and axillars light buff. Tail with median rectrices dusky brown margined with slightly buffy whitish; next four pairs more blackish, with outer margins narowly ashy; subexternal pair with a fine whitish spot at the tip of the feather; outermost pair with the outer web white and the inner web white at tip and in a broad stripe on the inner portion narrowing basad but reaching near the base of the feather. Bill (in dried skin) with maxilla light brown and mandible Honey Yellow; feet light Honey Yellow. Wing, 66 mm.; tail, 46; exposed culmen, 10; culmen from base, 13.5; tarsus, 19; hind toe, 6.5; hind claw, 7.

Remarks .--- Males are like the females.

Worn examples are even more strikingly whitish-streaked above than the type which is in fine, fresh plumage. They are also more whitish on the belly and throat, and the other light markings on various areas are correspondingly lighter in color. Worn examples of *c. chii*, although they sometimes appear somewhat whitish below, almost always agree with the fresher examples of the same form in having a distinctly yellowish tone, quite pronounced in many specimens. The buff of the breast shows the same distinction in tone. The upper parts of *chii*, in the specimens examined, always have the marginal streaks distinctly brownish and the dark centers also of a brownish black hue.

The clear, sharp margins of the dorsal plumage give chacoensis a more markedly streaked appearance than is shown by chii, approximating the difference of that nature exhibited by Anthus hellmayri in comparison with A. furcatus. The length and shape of the hind claw reverses this comparison and suggests the character of furcatus in comparison with hellmayri. It raises the question whether chacoensis is not best considered as a species rather than a subspecies of chii, and if the two are ever found breeding together, that arrangement will become obligatory. So many characters, however, appear to be of only subspecific value that for the present I suggest the subspecific relationship. In any case, the hind claw in the specimens of chacoensis examined measures 7 to 8 mm. in length, averaging 7.8, while in chii it is 9.5 to 14, averaging 11.5. There is an overlap in the tail-pattern of the two forms, and here, again, chacoensis suggests furcatus although that species is widely distinct in various other particulars and can have no close relationship to chacoensis.

Specimens from northeastern South America (the Guianas and adjacent areas) show an average of more white on the tail than the more southern examples, but there is much overlapping with *chii* though less with *chacoensis* which is at the other extreme. Other factors of distinction also argue for the recognition of *abariensis* (*Notiocorys abariensis* Chubb, Bull. Brit. Orn. Club, 41: 79, 1921—Abary River, British Guiana). There is distinctly less yellowish color on the under parts although not the clearer buff or whitish of *chacoensis*; the upper parts are lighter in tone, with the centers of the feathers less deeply blackish and the margins somewhat warmer; the hind claw is as in *chii*, being longer and less arcuate than in *chacoensis*. In series, the populations are readily distinguishable, and most of the individual specimens as well. The reduced amount of pectoral streaking in *abariensis*, that was one of the characters mentioned by Chubb, is apparent in most specimens, but is not consistent.

A small series of birds from Maranhão, Brazil, approaches *abariensis* in respect to the weakening of the yellow color on the under parts, but the pectoral streaking is quite prominent. Two Piauí birds agree with them in respect to the yellowish coloration, but the pectoral streaks are weak, while a third Piauí example has the reduced streaking combined with the yellowish tings of *chii*. Several specimens from the State of Baia are like this third Piauí bird. From Espirito Santo and more southern localities, the series are relatively consistent, with dark upper parts, relatively strong pectoral markings, and yellowish coloration from chin to under tail-coverts. The various tendencies shown from Maranhão to Baia are too irregular to suggest the need for taxonomic distinction.

I append the list of specimens only of *abariensis*, *chii*, and *chacoensis* since *peruvianus* and *parvus*, although apparently conspecies, do not enter into the foregoing discussion.

A. c. abariensis.-

VENEZUELA:

(Maripa, Suapure, Paulo [Roraima], Arabupú, and Auyantepui), 6 8, 2 9, 2 (¶).

CAYENNE: 1 8.

BRITISH GUIANA: (Abary, Annai, and Rupununi River), 2 8, 2 (?). BRAZIL: (Frechal [Rio Surumú] and Limão [Rio Cotinga]), 3 8. A. c. chii.-BRAZIL: Maranhão (Anil, Rosario, and Miritiba), 3 8, 3 9, 2 (9); Pará (Cussari and Espirito Santo), 3 &; Piauí, Os Morros, 1 δ , 2 φ ; Baia (Barra, Remanso, Baia, and Baia trade-skins), 3 8, 1 9, 5 (?); Espirito Santo, Lagôa Juparaná, 2 9; Rio de Janeiro (trade-skins), 3 (?); Mato Grosso, Chapada, 1 8, 1 9. ARGENTINA: Tucumán (Sarmiento and Tucumán), 7 8, 2 9; Chaco, Las Palmas, 1 δ^1 , 1 Q^1 ; Buenos Aires, Barracas al Sud, 1 &, 1 9, 1 (1). PARAGUAY: (Fort Wheeler, Puerto Pinasco, Chaco, Makthlawaiya, and Colonia Independencia), 3 8, 2 9; Puerto Pinasco, Kilometre 80, west, 3 \mathcal{S}^1 , 2 \mathcal{Q}^1 . A. c. chacoensis.— ARGENTINA: Chaco, Avia Terai, 19 (type); Chaco, Las Palmas, Río Ca-a, 191; Formosa, Kil, 182, Riacho Pilaga, 10 mi. n.w., 1 91; Formosa, San José, 2 3². PARAGUAY: Puerto Pinasco, Río Paraguay, 2 9¹. ¹Specimens in U. S. National Museum, ²Specimens in Fundación Miguel Lillo, Tucumán.